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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,986	07/13/2006	Soichiro Kemmochi	SH-0062PCTUS	1706

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VIENNA, VA 22182-3817

EXAMINER
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JENNINGS, STEPHANIE M

ART UNIT	PAPER NUMBER
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3725

MAIL DATE	DELIVERY MODE
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07/02/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/585,986

**Applicant(s)**

KEMMOCHI ET AL.

**Examiner**

Stephanie Jennings

**Art Unit**

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 2, 6, 8, 9 and 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 7, 10 and 12-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments, see pages 15 and 16, filed March 23, 2009, with respect to the drawing objections have been fully considered and are persuasive. The objection of December 22, 2008 has been withdrawn.
2. Applicant's arguments, see pages 16-19, filed March 23, 2009, with respect to the rejection(s) of claim(s) 1, 5, and 7 under 35 USC 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art.
3. Applicant's arguments, see 16-19, filed March 23, 2009, with respect to the rejection(s) of claim(s) 3, 4, and 10 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art.

***Drawings***

4. The drawings were received on February 23, 2009. These drawings are acceptable.

***Specification***

5. Amendments to the specification have been reviewed and accepted as being in compliance.

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 3-5, 7, 10, 12-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamura et al. US Patent No. 6,742,363 in view of Lipowski US Patent No. 4,650,380, Doudet US Patent No. 4,386,513, and Japanese Patent Publication 57-121810 A.

9. Yamamura teaches:

10. Limitations from claim 1, a method of elongating optical fiber base material (102) comprising: heating and softening a base material ingot (102) in a heating means (176) (column 2, lines 26-34).

11. Limitations from claim 5, an apparatus for elongating optical fiber base material (102), comprising: a heating means (176) which heats and softens a base material ingot (102) (column 2, lines 26-34).

12. Limitations from claim 7, the apparatus for elongating optical fiber base material (102) according to claim 5, wherein the surfaces of said pinch rollers (142) are winded and fixed

woven fabric made comprising of heat-resistant material to prevent said pinch rollers (142) from directly contacting to base material rod made comprising of metal (column 10, lines 26-28, 36-41).

13. Limitations from claim 13, the apparatus of claim 5, wherein a surface of said pinch rollers include concave grooves for stably nipping the base material rod mounted on a position adjustment table via a mechanical reference level included in an untapered shaft, and woven fabric comprised of heat-resistant material is wound and fixed around the surface of the pinch rollers (column 10, lines 26-28, 36-41).

14. Yamamura teaches a method for elongating optical fiber base, but does not teach such a method with roller grooves with a curvature radius larger than the base material rod. Doudet, however, teaches these limitations.

15. Doudet teaches:

16. Limitations from claim 1, drawing said ingot with a pair of pinch rollers; and elongating the ingot to make base material rod having including a smaller diameter than said ingot, wherein a roller groove (63) of said pinch rollers includes one of a curvature radius which is greater than the outer diameter of said base material rod (64) (column 4, lines 38-52).

17. Limitations from claim 5, a pair of pinch rollers which draws, and elongates the ingot to make a base material rod having including a smaller diameter than the ingot said pair of pinch rollers comprised of metal (column 4, lines 38-52).

18. It would have been obvious to one of ordinary skill in the art to combine Doudet's and Yamamura's invention because designing the roller groove with with a curvature radius ensures a proper fit as the rod will fit securely in the roller groove.

19. Neither Yamamura nor Doudet teaches a V-shaped roller groove. Lipowski, however, teaches these limitations.
20. Lipowski teaches:
21. Limitations from claim 1, a V- shaped roller groove with a cross section including straight lines formed on each surface of said pinch rollers comprised of metal, and wherein the facing roller grooves respectively formed on the surfaces of a pair of said pinch rollers nip and draw said base material rod (column 8, lines 36-47 and column 9, lines 9-17).
22. Limitations from claim 5, and respectively include either one of a roller groove including a curvature radius greater than the outer diameter of said base material rod and a V-shaped roller groove comprising a cross section including straight lines on the surfaces of said pinch rollers (column 8, lines 36-47 and column 9, lines 9-17).
23. It would have been obvious to one of ordinary skill in art to combine Yamamura's invention with Lipowski's invention because the V-shaped roller groove ensures a proper fit for the rollers.
24. Claims 3, 4, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamura and Lipowski as applied to claims 1 and 5 above, and further in view of Japanese Patent Publication 57-121810 A .
25. Yamamura teaches a method and apparatus for elongating an optical base fiber with a set of pinch rollers and electric furnace, but does not teach a laser positioning system. Japanese Patent Publication 57-121810 A abstract does teach this feature.
26. Japanese Patent Publication 57-121810 A abstract teaches:

27. Limitations from claim 3, wherein a positioning adjustment apparatus supporting said pinch rollers adjusts the position of the apparatus using one of a vertical line of laser beam and a plumb bob, which is parallel to the traveling direction of the base material ingot, runs through the middle of the heating means and the center point of the shorter rod, to determine the positions of said pinch rollers (abstract, constitution).

28. Limitations from claim 4, the method of elongating optical fiber base material according to claim 1, wherein a jig comprising an upper board and a cylindrical part is mounted on a pair of pinch rollers, and a positioning adjustment apparatus supporting said pinch rollers adjusts the position of the apparatus using a vertical line of laser beam or a plumb bob, which is parallel to the traveling direction of the base material ingot, runs through the middle of the heating means and the center point of the shorter rod, to determine the positions of said pinch rollers (abstract, constitution).

29. Limitations from claim 10, the method of elongating optical fiber base material according to claim 3, wherein a jig comprising an upper board and a cylindrical part is mounted on a pair of pinch rollers, and a positioning adjustment apparatus supporting said pinch rollers adjusts the position of the apparatus using a vertical line of laser beam, which is parallel to the traveling direction of the base material ingot, runs through the middle of the heating means and the center point of the shorter rod, to determine the positions of said pinch rollers (abstract, constitution).

30. It would have been obvious to one of ordinary skill in the art to combine the invention of Japanese Patent Application Publication 57-121810 A with Yamamura's invention because it is well-known in the art that the use of a laser positioning system provides accuracy in the optical

fiber manufacturing process by providing a correction means for the pinch rollers, therefore minimizing potential defects that could occur during processing.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephanie Jennings whose telephone number is (571) 270-7392. The examiner can normally be reached on Monday-Thursday, 7 am - 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached on (571) 272-4480. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. J./  
Examiner, Art Unit 3725  
June 30, 2009

/Dana Ross/  
Supervisory Patent Examiner, Art Unit  
3725